CLAIMS:

1.   A device comprising:

a battery power source;

a radio transceiver powered by the battery and having components for transmission and receipt of data;

a memory having instructions stored thereon; and

a controller coupled to the transceiver and to the memory and configured execute the instructions so as to:

create, via the transceiver, wireless connections with remote devices in any of a plurality of connection configurations,

detect the presence, in a wireless transmission from a remote device, of one or more parameters identifying one of the plurality of configurations, and

implement, based on the configuration identified, one of a plurality of power management algorithms.

2.   The device of claim 1, wherein the controller is configured to detect the presence of one or more parameters by determining if a wireless connection with the remote device has at least one parameter corresponding to an acceptably fast re-connection procedure.

3.   The device of claim 2, wherein the controller is configured to:

implement, upon determining the presence of the at least one parameter, a power management algorithm in which the transceiver is deactivated after a first period of device inactivity, and

implement, upon determining the absence of the at least one parameter, a power management algorithm in which the transceiver is deactivated after a second period of device inactivity, the second period being longer than the first period.

4.   The device of claim 3, wherein the controller is configured such that the device is inactive if the device is not being used to generate or transmit data based on input from a human user of the device.

5.   The device of claim 1, wherein the controller is further configured detect the presence of one or more parameters at the time of establishing a wireless connection with a remote device.

6.   The device of claim 1, wherein the plurality of power management algorithms comprises three or more power management algorithms.

7.   The device of claim 1, wherein the device is a computer input device.

8.   The device of claim 7, wherein the device is a computer mouse.

9.   The device of claim 7, wherein the device is a computer keyboard.

10.   A method for automatically selecting a power management algorithm in a battery-powered wireless device capable of creating wireless connections with a remote device in any of a plurality of connection configurations, comprising:

establishing a wireless connection with a remote device;

determining wireless communication features supported by the remote device;

implementing a first power management algorithm if the remote device supports a first communication feature; and

implementing a second power management algorithm if the remote device does not support the first feature.

11.   The method of claim 10, wherein the first communication feature comprises support for an acceptably fast re-connection procedure.

12.   The method of claim 11, wherein:

the first power management algorithm comprises deactivating a transceiver after a first period of wireless device inactivity, and

the second power management algorithm comprises deactivating the transceiver after a second period of wireless device inactivity, the second period being longer than the first period.

13.   The method of claim 12, wherein the wireless device is inactive if the wireless device is not being used to generate or transmit data based on input from a human user.

14.   The method of claim 10, further comprising:

implementing a third power management algorithm if the remote device does not

support the first feature but supports a second feature.

15.   The method of claim 10, wherein said determining wireless communication features

comprises determining wireless communication features at the time of establishing a wireless

connection with a remote device.

16.   A machine-readable medium having stored thereon data representing sequences of

instructions which, when executed by a processor, cause the processor to perform steps

comprising:

establishing, from a battery-powered wireless device capable of creating wireless

connections with a remote device in any of a plurality of connection configurations, a

wireless connection with a remote device;

determining wireless communication features supported by the remote device;

implementing a first power management algorithm if the remote device supports a

first communication feature; and

implementing a second power management algorithm if the remote device does not

support the first feature.

17.   The machine-readable medium of claim 16, wherein the first communication feature

comprises support for an acceptably fast re-connection procedure.

18.   The machine-readable medium of claim 17, wherein:

        the first power management algorithm comprises deactivating a transceiver after a first period of wireless device inactivity, and

        the second power management algorithm comprises deactivating the transceiver after a second period of wireless device inactivity, the second period being longer than the first period.

19.   The machine-readable medium of claim 18, wherein the wireless device is inactive if the wireless device is not being used to generate or transmit data based on input from a human user.

20.   The machine-readable medium of claim 16, comprising further sequences of instructions which cause the processor to perform steps comprising:

        implementing a third power management algorithm if the remote device does not support the first feature but supports a second feature.

21.   The machine-readable medium of claim 16, wherein said determining wireless communication features comprises determining wireless communication features at the time of establishing a wireless connection with a remote device.